



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,748	07/31/2001	Robert E. Gillis	016494-001100US	5719

20350 7590 03/07/2005

TOWNSEND AND TOWNSEND AND CREW, LLP  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

EXAMINER
----------

YIP, WINNIE S

ART UNIT	PAPER NUMBER
----------	--------------

3637

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/919,748

Applicant(s)

GILLIS, ROBERT E.

Examiner

Winnie Yip

Art Unit

3637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on December 23, 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

***Part II DETAILED ACTION***

This office action is in response to applicant's amendment filed on December 23, 2004.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 103***

1. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryant (US Patent No. 5,117,852) in view of Warner et al. (US Patent No. 4,106,520), and further in view of Eubank, Jr. (US Patent NO. 3,889,433).

Bryant shows and discloses a frame for a dome shaped shelter structure, comprising: a plurality of flexible and resilient poles (i.e., 18, 20, 22, 24, 26) being arranged in intersecting relationship with a plurality of pole crossings formed therebetween (i.e., 76, 80, 84), at least one four sided opening/subdivisions (i.e., 136, 142, 144) is formed between the pole crossings defining two non-adjacent pairs of vertices and having sides defined by sections of the poles, each pole having two terminal ends being positioned in a common plane (48) to thereby define a substantial dome shaped interior volume, at least pairs of intersecting poles (i.e., 22, 24; and 18, 20) having ends terminated and connected together at a common points (52, 54, 56, 58, 60) in a common surface such as the ground surface, the terminated ends being connected together near at least one of the pole crossings (i.e., 58, 60), and a membrane (12) is connected to poles for covering the interior volume, a plurality of tension harnesses (134) extending and directly connecting a plurality of pair of non-adjacent vertices of a plurality of openings and having free ends fastened at a common point (132) in a common plane to the ground surface. Bryant teaches does not define at least three poles having ends terminated and connected together at a

Art Unit: 3637

common point in a common plane as claimed. However, Warner et al. teaches a dome shaped shelter structure comprising a frame having a plurality of poles crossing each other, the poles (10) being assuming substantially arcuate shape under tension and being arranged that the two opposite ends of more than three poles being terminated at a common point (11) and secured in a common plane such as to the ground surface. It would have been obvious to one ordinary skill in the art at the time the invention was made to modify the frame of the shelter structure of Bryant comprising at least three poles having opposite terminal ends being terminated and secured at a common point in a common plane as taught by Warner et al. for providing stronger support as desired since applicant has not specifically disclosed that having ends of at least three poles connected to a common point provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with a pair of poles as taught by Bryant or with at least three poles as taught by Warner et al. because of numbers of poles as used performing the same function of providing sufficiently support of the shelter structure as an obvious matter of design choice as depending upon the size or construction requirement of the application as needed. Further, Bryant and Warner et al. do not define the frame comprising at least one tension harness extending substantially diagonally across the at least one four sides opening and directly connecting a non-adjacent pair of vertices of the opening. Eubank, Jr. teach a frame for shelter structure, comprising a plurality of arcuate flexible poles (i.e. 84, 80) being arranged in intersecting relationship with a plurality of pole crossings formed therebetween, and a plurality of four sided openings is formed between the pole crossings, at least one tension harness (i.e., 39, 36, 54, 55, 82) made of lower stretch material and extending substantially

Art Unit: 3637

diagonally across the opening and directly connecting a non-adjacent pair of vertices (i.e., 30, 31; 30, 33; or 33, 32; or 76, 73) of at least one opening for providing compressing forces between the poles to provide stronger support to the membrane. It would have been obvious to one ordinary skill in the art at the time the invention was made to modify the frame of Bryant combined with Warner et al. having at least one tension harness extending substantially diagonally across one or more four sides openings and directly connecting a non-adjacent pair of vertices of each opening in various obvious arrangement as taught by Eubank, Jr. for providing tensile forces to the poles for placing the frame with forces in equilibrium and for strongly supporting the membrane disposed over the openings of the poles.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

In addition, in response to applicant's arguments against the references Bryant and Eubank Jr. individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Bryant teaches a frame of a shelter structure comprising a plurality of pairs of curved poles cross each other to form a plurality of polygonal openings including at least one four sided opening as claimed. Warner et al., now is used as a teaching reference to teach a shelter structure could have a plurality of sets of poles cross each other, each set of poles having at least three poles having ends terminated at a common point as claimed now. And, Eubank, Jr. is only used a teaching reference to teach a shelter structure could have tension harnesses (65 or

Art Unit: 3637

82) extending substantially diagonally across the openings formed by a plurality of curved flexible poles (84, 80) for tensioning the crosses (76) between the poles to make the frame structure more stable as solves the same problem as claimed invention. Whether or not Eubank, Jr. disclose the frame of the shelter having ends of at least three poles terminate at a common point as claimed now does not differentiate the claimed structure from the prior art structure satisfying the claimed structure limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

***ACTION IS FINAL***

3. Applicant's amendment necessitated the new grounds of rejection. Accordingly, THIS ACTION IS MADE FINAL. See M.P.E.P. ' 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. ' 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. ' 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

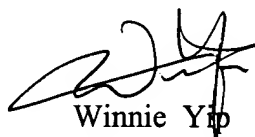
***Inquiry Contacts***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Winnie Yip whose telephone number is 703-308-2491. The examiner can normally be reached on M-F (9:30-5:30).

Art Unit: 3637

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on 703-308-2486. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Winnie Yip  
Primary Examiner  
Art Unit 3637

wsy  
March 3, 2005